

Tanja Zimmermann

List of Publications by Year in descending order

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68
papers

5,784
citations

76326

40
h-index

95266

68
g-index

70
all docs

70
docs citations

70
times ranked

6785
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultralightweight and Flexible Silylated Nanocellulose Sponges for the Selective Removal of Oil from Water. <i>Chemistry of Materials</i> , 2014, 26, 2659-2668.	6.7	511
2	Properties of nanofibrillated cellulose from different raw materials and its reinforcement potential. <i>Carbohydrate Polymers</i> , 2010, 79, 1086-1093.	10.2	456
3	Cellulose Nanocrystal Inks for 3D Printing of Textured Cellular Architectures. <i>Advanced Functional Materials</i> , 2017, 27, 1604619.	14.9	447
4	Amine-Based Nanofibrillated Cellulose As Adsorbent for CO ₂ Capture from Air. <i>Environmental Science & Technology</i> , 2011, 45, 9101-9108.	10.0	367
5	Synthesis and Characterization of Bionanocomposites with Tunable Properties from Poly(lactic acid) and Acetylated Microfibrillated Cellulose. <i>Biomacromolecules</i> , 2010, 11, 454-464.	5.4	284
6	Cellulose nanocrystals and microfibrillated cellulose as building blocks for the design of hierarchical functional materials. <i>Journal of Materials Chemistry</i> , 2012, 22, 20105.	6.7	245
7	Dynamics of Cellulose Nanocrystal Alignment during 3D Printing. <i>ACS Nano</i> , 2018, 12, 6926-6937.	14.6	203
8	Enhancing adsorption of heavy metal ions onto biobased nanofibers from waste pulp residues for application in wastewater treatment. <i>Cellulose</i> , 2014, 21, 2831-2844.	4.9	191
9	3D printing of nano-cellulosic biomaterials for medical applications. <i>Current Opinion in Biomedical Engineering</i> , 2017, 2, 29-34.	3.4	155
10	Cationic cellulose nanofibers from waste pulp residues and their nitrate, fluoride, sulphate and phosphate adsorption properties. <i>Carbohydrate Polymers</i> , 2016, 135, 334-340.	10.2	147
11	Single-Component and Binary CO ₂ and H ₂ O Adsorption of Amine-Functionalized Cellulose. <i>Environmental Science & Technology</i> , 2014, 48, 2497-2504.	10.0	138
12	Nanofibrillation of pulp fibers by twin-screw extrusion. <i>Cellulose</i> , 2015, 22, 421-433.	4.9	131
13	Highly efficient and straightforward functionalization of cellulose films with thiol-ene click chemistry. <i>Journal of Materials Chemistry</i> , 2011, 21, 16066.	6.7	130
14	Fast and Reversible Direct CO ₂ Capture from Air onto All-Polymer Nanofibrillated Cellulose-Polyethylenimine Foams. <i>Environmental Science & Technology</i> , 2015, 49, 3167-3174.	10.0	129
15	Hydrophobic cellulose nanopaper through a mild esterification procedure. <i>Cellulose</i> , 2014, 21, 367-382.	4.9	128
16	Composites of Cationic Nanofibrillated Cellulose and Layered Silicates: Water Vapor Barrier and Mechanical Properties. <i>ACS Applied Materials & Interfaces</i> , 2012, 4, 4832-4840.	8.0	110
17	Energy consumption of the nanofibrillation of bleached pulp, wheat straw and recycled newspaper through a grinding process. <i>Nordic Pulp and Paper Research Journal</i> , 2014, 29, 167-175.	0.7	108
18	Drying and Pyrolysis of Cellulose Nanofibers from Wood, Bacteria, and Algae for Char Application in Oil Absorption and Dye Adsorption. <i>ACS Sustainable Chemistry and Engineering</i> , 2017, 5, 2679-2692.	6.7	100

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19	Rheology of nanofibrillated cellulose/acrylate systems for coating applications. <i>Cellulose</i> , 2014, 21, 1313-1326.	4.9	95
20	Nanofibrillated cellulose composite hydrogel for the replacement of the nucleus pulposus. <i>Acta Biomaterialia</i> , 2011, 7, 3412-3421.	8.3	88
21	TEMPO-Oxidized Nanofibrillated Cellulose as a High Density Carrier for Bioactive Molecules. <i>Biomacromolecules</i> , 2015, 16, 3640-3650.	5.4	84
22	Humic acid adsorption onto cationic cellulose nanofibers for bioinspired removal of copper(II) and a positively charged dye. <i>Soft Matter</i> , 2015, 11, 5294-5300.	2.7	77
23	Multifunctional Nanoclay Hybrids of High Toughness, Thermal, and Barrier Performances. <i>ACS Applied Materials & Interfaces</i> , 2013, 5, 7613-7620.	8.0	71
24	The chemical-free production of nanocelluloses from microcrystalline cellulose and their use as Pickering emulsion stabilizer. <i>Carbohydrate Polymers</i> , 2017, 178, 48-56.	10.2	61
25	3D printing of shape-morphing and antibacterial anisotropic nanocellulose hydrogels. <i>Carbohydrate Polymers</i> , 2021, 259, 117716.	10.2	59
26	Controlled Silylation of Nanofibrillated Cellulose in Water: Reinforcement of a Model Polydimethylsiloxane Network. <i>ChemSusChem</i> , 2015, 8, 2681-2690.	6.8	57
27	Nanofibrillated cellulose in wood coatings: Dispersion and stabilization of ZnO as UV absorber. <i>Progress in Organic Coatings</i> , 2015, 87, 112-121.	3.9	55
28	A Protein-Incorporated Nanocellulose Paper for Sensing Copper Ions at the Nano- to Micromolar Level. <i>Advanced Functional Materials</i> , 2017, 27, 1604291.	14.9	54
29	Complex-Shaped Cellulose Composites Made by Wet Densification of 3D Printed Scaffolds. <i>Advanced Functional Materials</i> , 2020, 30, 1904127.	14.9	54
30	Functional Cellulose Nanofiber Filters with Enhanced Flux for the Removal of Humic Acid by Adsorption. <i>ACS Sustainable Chemistry and Engineering</i> , 2016, 4, 4582-4590.	6.7	52
31	Characterization and mechanical properties investigation of the cellulose/gypsum composite. <i>Journal of Composite Materials</i> , 2016, 50, 657-672.	2.4	51
32	Ultra-Porous Nanocellulose Foams: A Facile and Scalable Fabrication Approach. <i>Nanomaterials</i> , 2019, 9, 1142.	4.1	50
33	Properties of chemically and mechanically isolated fibres of spruce (<i>Picea abies</i> [L.] Karst.). Part 1: Structural and chemical characterisation. <i>Holzforschung</i> , 2005, 59, 240-246.	1.9	48
34	Influence of mechanical treatments on the properties of cellulose nanofibers isolated from microcrystalline cellulose. <i>Reactive and Functional Polymers</i> , 2014, 85, 134-141.	4.1	47
35	Dry, hydrophobic microfibrillated cellulose powder obtained in a simple procedure using alkyl ketene dimer. <i>Cellulose</i> , 2016, 23, 1189-1197.	4.9	47
36	Reinforcement of polycaprolactone with microfibrillated lignocellulose. <i>Industrial Crops and Products</i> , 2016, 93, 302-308.	5.2	46

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37	Nitrate removal from water using a nanopaper ion-exchanger. <i>Environmental Science: Water Research and Technology</i> , 2016, 2, 117-124.	2.4	46
38	Influence of the nanofiber dimensions on the properties of nanocellulose/poly(vinyl alcohol) aerogels. <i>Journal of Applied Polymer Science</i> , 2015, 132, .	2.6	44
39	Influence of Climatic Factors on the Weathering of Coated Wood. <i>European Journal of Wood and Wood Products</i> , 2002, 60, 411-420.	2.9	43
40	Characterization of Pores in Dense Nanopapers and Nanofibrillated Cellulose Membranes: A Critical Assessment of Established Methods. <i>ACS Applied Materials & Interfaces</i> , 2015, 7, 25884-25897.	8.0	42
41	Nanofibrillated cellulose in wood coatings: mechanical properties of free composite films. <i>Journal of Materials Science</i> , 2014, 49, 6437-6448.	3.7	41
42	Mechanical Properties Tailoring of 3D Printed Photoresponsive Nanocellulose Composites. <i>Advanced Functional Materials</i> , 2020, 30, 2002914.	14.9	40
43	Enhanced Antimicrobial Activity and Structural Transitions of a Nanofibrillated Cellulose–Nisin Biocomposite Suspension. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 20170-20181.	8.0	39
44	Effect of Surface Charge on Surface-Initiated Atom Transfer Radical Polymerization from Cellulose Nanocrystals in Aqueous Media. <i>Biomacromolecules</i> , 2016, 17, 1404-1413.	5.4	37
45	Microfibrillated cellulose foams obtained by a straightforward freeze–thawing–drying procedure. <i>Cellulose</i> , 2017, 24, 3825-3842.	4.9	31
46	Improved mechanical properties of bitumen modified with acetylated cellulose fibers. <i>Composites Part B: Engineering</i> , 2018, 140, 139-144.	12.0	31
47	Reinforcement of Polymeric Submicrometer–sized Fibers by Microfibrillated Cellulose. <i>Macromolecular Materials and Engineering</i> , 2012, 297, 576-584.	3.6	28
48	Upgrading flax nonwovens: Nanocellulose as binder to produce rigid and robust flax fibre preforms. <i>Composites Part A: Applied Science and Manufacturing</i> , 2016, 83, 63-71.	7.6	27
49	Deformation and failure mechanism of secondary cell wall in Spruce late wood. <i>Applied Physics A: Materials Science and Processing</i> , 2010, 100, 447-452.	2.3	25
50	Structure of cellulose-silica hybrid aerogel at sub-micron scale, studied by synchrotron X-ray tomographic microscopy. <i>Composites Science and Technology</i> , 2016, 124, 71-80.	7.8	20
51	Fibrillation of flax and wheat straw cellulose: Effects on thermal, morphological, and viscoelastic properties of poly(vinylalcohol)/fibre composites. <i>BioResources</i> , 2011, 6, 1631-1647.	1.0	19
52	Superhydrophobicity of nanofibrillated cellulose materials through polysiloxane nanofilaments. <i>Cellulose</i> , 2018, 25, 1127-1146.	4.9	18
53	Poly(lactide)/Montmorillonite Hybrid Latex as a Barrier Coating for Paper Applications. <i>Polymers</i> , 2016, 8, 75.	4.5	17
54	Humic acid desorption from a positively charged nanocellulose surface. <i>Journal of Colloid and Interface Science</i> , 2017, 504, 500-506.	9.4	17

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55	Simple Green Route to Performance Improvement of Fully Bio-Based Linseed Oil Coating Using Nanofibrillated Cellulose. <i>Polymers</i> , 2017, 9, 425.	4.5	15
56	Nanoparticles capture on cellulose nanofiber depth filters. <i>Carbohydrate Polymers</i> , 2018, 201, 482-489.	10.2	14
57	Deformation of the compound middle lamella in spruce latewood by micro-pillar compression of double cell walls. <i>Journal of Materials Science</i> , 2012, 47, 6125-6130.	3.7	13
58	Identification of polymer matrix yield stress in the wood cell wall based on micropillar compression and micromechanical modelling. <i>Philosophical Magazine</i> , 2016, 96, 3461-3478.	1.6	13
59	Nanofibrillated Cellulose Templated Membranes with High Permeance. <i>ACS Applied Materials & Interfaces</i> , 2016, 8, 33943-33954.	8.0	13
60	Photoresponsive Movement in 3D Printed Cellulose Nanocomposites. <i>ACS Applied Materials & Interfaces</i> , 2022, 14, 16703-16717.	8.0	11
61	Liquid ammonia treatment of (cationic) nanofibrillated cellulose/vermiculite composites. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2013, 51, 638-648.	2.1	9
62	Cellulose-Based Microparticles for Magnetically Controlled Optical Modulation and Sensing. <i>Small</i> , 2020, 16, 1904251.	10.0	9
63	Cellulose Fibrils: Isolation, Characterization, and Capability for Technical Applications. <i>ACS Symposium Series</i> , 2006, , 33-47.	0.5	6
64	Fibrillated cellulose in heterophase polymerization of nanoscale poly(methyl methacrylate) spheres. <i>Colloid and Polymer Science</i> , 2016, 294, 1393-1403.	2.1	6
65	In situ SEM micro-indentation of single wood pulp fibres in transverse direction. <i>Journal of Electron Microscopy</i> , 2010, 59, 345-349.	0.9	4
66	3D Printing: Complex Shaped Cellulose Composites Made by Wet Densification of 3D Printed Scaffolds (<i>Adv. Funct. Mater.</i> 4/2020). <i>Advanced Functional Materials</i> , 2020, 30, 2070024.	14.9	2
67	Chemical Functionalization as a Powerful Tool to Broaden the Scope of Applications of Cellulose Nanofibers. <i>Materials and Energy</i> , 2014, , 123-138.	0.1	0
68	Functional Materials from Cellulose Nanofibers. <i>Chimia</i> , 2015, 69, 232-232.	0.6	0